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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,532	12/29/2003	Jeung-Hie Choi	51876P546	8523
8791 7590 05/03/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			EXAMINER OSORIO, RICARDO	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 05/03/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/748,532

Applicant(s)

CHOI, JEUNG-HIE

Examiner

RICARDO L. OSORIO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/5/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species 1, Fig. 4, claims 1-4 and 6-8 in the reply filed on 2/9/2007 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (APA, herefrom) in view of Jung (KR 1020020016319).

Regarding claim 1, APA teaches of a panel driver for driving a liquid crystal display LCD device using a super twisted nematic STN mode (see APA, page 2, lines 5-7), comprising at least one first means for receiving a plurality of source voltages (Fig. 2, character 110); and at least one second means connected to the plurality of driving power lines for delivering the selected source voltage to a line (S01-S04).

However, APA teaches of supplying a voltage source at each of a plurality of driving power lines, and does not specifically teach of supplying a selected source voltage at an alternative among a plurality of driving power lines.

Jung teaches of supplying a selected source voltage at an alternative among a plurality of driving power lines (see Fig. 7, multiplexers supply alternately a selected source).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to alternately supply the selected source voltage, as taught by Jung, in the device of APA because this helps reduce circuit area (see PURPOSE).

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As to claim 2, APA teaches, further comprising: a first driving power line (see APA, first power line connected to voltage follower); and a second driving power line (see APA, second power line connected to voltage follower); wherein first means outputs the selected source voltage to an alternative of a first and a second driving power lines.

However, APA teaches of supplying a voltage source at each of a plurality of driving power lines, and does not specifically teach of supplying a selected source voltage at an alternative of a first and second driving power lines.

Jung teaches of supplying a selected source voltage at an alternative among a plurality of driving power lines (see Fig. 7, multiplexers supply alternately a selected source).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to alternately supply the selected source voltage, as taught by Jung, in the device of APA because this helps reduce circuit area (see PURPOSE).

As to claim 3, APA, further, teaches of the second means includes a first transistor controlled by the first driving voltage control signal for transmitting the selected source voltage supplied at the first driving power line to the line (APA, Fig. 2, character S01) ; and a second transistor controlled by the second driving voltage control signal for transmitting the selected source voltage supplied at the second driving power line to the line (APA, Fig. 2, character S02).

Regarding claim 4, APA teaches of the first means includes a plurality of voltage following means for delivering the plurality of source voltages (see APA, Fig. 2, character 110).

However, further, APA does not clearly teach of a multiplexing means for receiving the plurality of source voltages from the plurality of voltage following means and outputting the selected source voltage to an alternative of the first and the second driving power lines in response to a power selecting signal.

Jung teaches of a multiplexing means for receiving the plurality of source voltages from the plurality of voltage following means and outputting the selected source voltage to an alternative of the first and the second driving power lines in response to a power selecting signal.
(see Fig. 7, multiplexers supply alternately a selected source).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the multiplexing means, as taught by Jung, in the device of APA because this helps reduce circuit area (see PURPOSE).

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Regarding claim 6, further, APA teaches of at least one first supplying means for receiving a plurality of first source voltages (Fig. 2, ch. 110) and respectively supplying a first selected source voltage to one of a first and a second driving power lines (See APA first and second power lines in common or segment blocks); at least one second supplying means for receiving a plurality of second source voltages and respectively supplying a second selected source voltage to an alternative of a third and a fourth driving power lines (See APA first and second power lines in common or segment blocks); at least one first driving means for receiving the first selected source voltage and driving a segment line in response to a first and a second driving voltage control signals (Fig. 2, character S01); and at least one second driving means for receiving the second selected source voltage and driving a common line in response to a third and a fourth driving voltage control signals (Fig. 2, character S02).

However, APA teaches of supplying a voltage source at each of a plurality of driving power lines, and does not specifically teach of supplying a selected source voltage at an alternative among a plurality of driving power lines.

Jung teaches of supplying a selected source voltage at an alternative among a plurality of driving power lines (see Fig. 7, multiplexers supply alternately a selected source).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to alternately supply the selected source voltage, as taught by Jung, in the device of APA because this helps reduce circuit area (see PURPOSE).

Regarding claim 7, APA teaches of a plurality of voltage following means for delivering the plurality of source voltages (see APA, Fig. 2, character 110, and VO, V1).

However, further, APA does not clearly teach of a multiplexing means for receiving the plurality of source voltages from the plurality of voltage following means and outputting the selected source voltage to an alternative of the first and the second driving power lines in response to a power selecting signal.

Jung teaches of a multiplexing means (302a) for receiving the plurality of source voltages from the plurality of voltage following means and outputting the selected source voltage to an alternative of the first and the second driving power lines in response to a power selecting signal. (see Fig. 7, multiplexers supply alternately a selected source).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the multiplexing means, as taught by Jung, in the device of APA because this helps reduce circuit area (see PURPOSE).

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Regarding claim 8, APA teaches of the a plurality of voltage following means for delivering the plurality of second source voltages (see APA, Fig. 2, character 110, and V2, V3).

However, further, APA does not clearly teach of a multiplexing means for receiving the plurality of second source voltages from the plurality of voltage following means and outputting the selected source voltage to an alternative of the first and the second driving power lines in response to a second power selecting signal.

Jung teaches of a multiplexing means (302b) for receiving the plurality of second source voltages from the plurality of voltage following means and outputting the selected source voltage to an alternative of the first and the second driving power lines in response to a second power selecting signal. (see Fig. 7, multiplexers supply alternately a selected source).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the multiplexing means, as taught by Jung, in the device of APA because this helps reduce circuit area (see PURPOSE).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo L. Osorio whose telephone number is 571-272-7676. The examiner can normally be reached on Monday through Thursday from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231


or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RICARDO OSORIO
PRIMARY EXAMINER
Technology Division: 2629

RLO

April 29, 2007